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# Specter of African Swine Fever Casts Pall Over Year of the Pig; Beef Imports Benefit

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#### **Report Highlights:**

African Swine Fever outbreaks continue in China, affecting all aspects of the swine and pork industry. China has reported 115 ASF outbreaks to the World Organization for Animal Health (OIE), covering all commercially significant swine producing regions.<sup>2</sup> While it is still unclear if ASF outbreaks will continue to be reported with the same frequency and geographic distribution, the disease has already taken a toll on China's swine and pork production for 2019. By the end of 2019, the total swine inventory will be down 13 percent to 374 million head. Pork production will decrease by 5 percent to 51.4 million metric tons (MT), with the reduced supply only slightly offset by weakened demand. To cover the domestic supply gap, China will increase pork imports by 33 percent to 2 million MT. While U.S. pork products still face retaliatory Chinese tariffs of up to 62 and process verification requirements, if these are removed, U.S. producers could significantly increase exports to China.

<sup>&</sup>lt;sup>1</sup> Special thanks to the Foreign Agricultural Service staff across China and APHIS of the U.S. Embassy for their significant contributions to this report.

<sup>&</sup>lt;sup>2</sup>OIE outbreak numbers used in this report were current as of March 11, 2019.

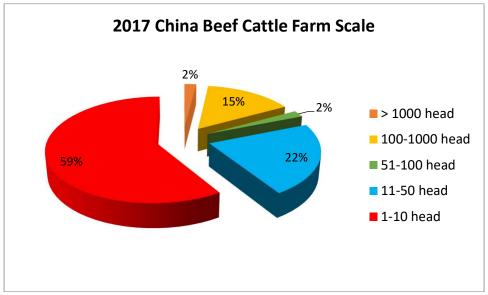
Chinese consumer concerns about ASF in pork will increase demand for beef and other animal proteins. In 2019, continued demand growth for beef will result in a 1-percent increase in beef production to 6.5 million MT. However, many of China's smaller ranching operations are still unwilling to expand, resulting in the overall cattle inventory being reduced by 3 percent to 91 million head. With its limited domestic supply, China will increase its beef imports to 1.6 million MT, representing a 20-percent increase. Notably, in order to diversify the number of beef suppliers, China's General Administration of Customs (GACC) has granted or restored market access for a number of countries in the last two years, including the United States.

#### **CATTLE**

#### **Production**

China's beef cattle inventory continues to shrink due to the structure of the beef industry

China's cattle herd inventory will decline by 3 percent to approximately 91 million head in 2019. Sustained demand growth for beef in China has led to several years of high prices and strong profits for the Chinese beef industry. However, because of the way the industry is structured, the cattle inventory has faced difficulties expanding to meet demand. Unlike other livestock sectors, there are very few large, integrated operations. 93 percent of beef cattle slaughtered in China comes from small cattle farms with less than 100 head. These small farms face issues such as accessing investment capital, rising feeds costs, and increasingly strict enforcement of environmental regulations. Given the planning time horizon in order to expand cattle operations, many of these small farmers are unwilling to expand their herds and some have even exited the market.

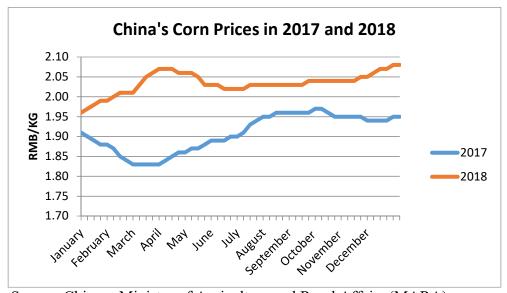


Source: Industry data from 2017

While large cattle farms have grown in number and size recently, these operations prefer to invest in the cattle feeding segment and continue to rely on small farmers to conduct breeding operations. This bottleneck in the cattle supply chain is evidenced by the increasing calf price in China. Calves weighing about 250 kg per head are now being sold for about 10,000 RMB (1,481 USD<sup>3</sup>). Furthermore, large integrated operators usually have their own slaughtering, processing, and import operations. In many instances, they have chosen to increase their imports of foreign beef for processing rather than develop their operations further down the value chain past cattle feeding, due to the comparatively higher costs of raising cattle in China.

 $<sup>^{3}</sup>$  1 USD = 6.75 RMB

Feed rations for cattle are composed primarily of corn (75 percent) and soybean meal (5-10 percent). China's National Bureau of Statistics (NBS) recently released data showing that the MY2018/19 corn planted area was 42.1 million hectares (631.9 million mu), down 270,000 hectares (18,000 mu) or 0.6 percent from MY2017/18. Current corn prices also indicate that MY2018/19 corn production was lower than expected, falling below historical trends. Thus available supplies of feed grains are likely constrained. The ongoing trade discussions between the United States and China have added uncertainty about import availability from the United States to fill any supply gap.



Source: Chinese Ministry of Agriculture and Rural Affairs (MARA)

China's usage of soybean meal for feed is highly reliant on imported soybeans. Industry reports that 95 percent of all soybean meal consumed by the livestock industry is produced from imported soybeans. Despite Chinese government directives to increase soybean planting in 2019 and soybean production increases in Brazil, the ongoing trade discussions between the United States and China have added uncertainty to soybean meal supply in 2019, further discouraging small holder cattle ranchers from expanding their operations.

#### **Imports**

China to import more beef cattle from Australia as live cattle tariffs fall to zero

Live cattle imports will increase to 150,000 head in 2019, a 7-percent increase over 2018. China primarily imports its live cattle from Australia, Uruguay, and New Zealand, with Australia accounting for over 80 percent import share in 2018. Effective January 1, 2019, tariffs on all live cattle imports from Australia fell to zero under the China-Australia Free Trade Agreement. However, the supply of Australian beef cattle available for export will be constrained by continued drought conditions in major cattle production regions. Live cattle are imported into China mainly for genetic improvement, but also for slaughter.

#### **BEEF**

#### **Production**

China to slaughter more beef cattle in 2019 to meet growing domestic demand

China's beef production in 2019 will reach 6.5 million MT, a 1-percent increase over 2018. Notably, Chinese cattle slaughter weights have risen, as Chinese ranchers are fattening their cattle to heavier weights to increase the amount of beef produced per animal. Industry reports that this is due to the rising costs of calves and feed.

## Consumption

Consumer demand for beef increases, in part driven by ASF-related concerns with pork

China's total beef consumption will continue to increase in 2019, reaching 8.1 million tons, a 4-percent year-on-year increase. This growth is driven by continued urbanization and increasing living standards. The demand growth continues to outstrip the available beef supply, resulting in sustained high prices.

In 2019, consumer concerns about the safety of domestic pork due to outbreaks of ASF, which began in August 2018, are pushing consumers to seek out alternative proteins, including beef. Although this was already occurring, the consumer concerns about ASF have accelerated this shift, especially in large cities where beef is widely available and consumers can afford to seek out substitutes.

China's per capita beef consumption will continue to increase in 2019. However, it is still well below the world average of 8.6 kg. The market demand for beef will continue to surpass the available domestic supply for the foreseeable future, creating strong opportunities for imported beef to fill the supply gap.

# **Imports**

China continues to diversify overseas beef suppliers as domestic demand outstrips supply

Post forecasts beef imports will reach 1.6 million tons in 2019, representing a 20-percent increase from 2018. Since 2017, China has announced new market access for a number of countries, including the United States, France, Ireland, the United Kingdom, Ukraine, Holland, Ireland, South Africa, Belarus, and Namibia. While some countries have yet to export commercial shipments due to China's opaque facility registration process, it is clear that China is making a concerted effort to diversify and increase its supply of beef imports. Post expects to see more market access announcements in 2019, especially with countries associated with China's One Belt One Road Initiative.

South American countries (Brazil, Argentina, and Uruguay), remained the top suppliers for the China market and accounted for 70 percent of the market in 2018. The third largest supplier to China is Australia and under their free trade agreement with China, tariffs on Australian beef were further reduced from 15 to 7 percent, effective from January 1, 2019.

For the United States, beef exports to China tripled in 2018 after China restored market access in June 2017. However, the current U.S.-China trade tensions have resulted in retaliatory Chinese tariffs of an additional 25 percent, putting U.S. exporters at a significant competitive disadvantage. Post forecasts 2019 U.S. exports will remain flat while the trade tensions continue.

# CATTLE PS&D TABLE

Animal Numbers, Cattle	2017		20	18	2019		
Market Begin Year	Jan 2	Jan 2017 Jan		2018	Jan	2019	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
<b>Total Cattle Beg. Stks</b>	99173	99173	96850	96850	94700	94100	
Dairy Cows Beg. Stocks	14500	12300	14000	12000	14000	12000	
Beef Cows Beg. Stocks	53000	46000	53500	46500	53400	46400	
<b>Production (Calf Crop)</b>	50500	44000	50900	44100	50850	44090	
<b>Total Imports</b>	121	121	100	140	150	150	
<b>Total Supply</b>	149794	143924	147850	141090	145700	138340	
<b>Total Exports</b>	19	19	20	15	20	10	
Cow Slaughter	0	0	0	0	0	0	
Calf Slaughter	0	0	0	0	0	0	
Other Slaughter	51850	45300	52050	45800	52100	46200	
Total Slaughter	51850	45300	52050	45800	52100	46200	
Loss	1075	1125	1080	1190	1000	1000	
<b>Ending Inventories</b>	96850	96850	94700	94100	92560	91140	
<b>Total Distribution</b>	149794	143924	147850	141090	145670	138340	
(1000 HEAD)							

# BEEF PS&D TABLE

Meat, Beef and Veal	2017		20	18	2019	
Market Begin Year	Jan 2	2017	Jan	2018	Jan 2019	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Slaughter (Reference)	51850	45300	52050	45800	52500	46200
Beginning Stocks	30	30	20	20	0	0
Production	7260	6346	7325	6440	7400	6500
Total Imports	974	974	1200	1350	1320	1620
Total Supply	8264	7350	8545	7810	8720	8120
Total Exports	17	17	15	16	15	15
<b>Human Dom. Consumption</b>	8227	7313	8530	7794	8705	8105
Other Use, Losses	0	0	0	0	0	0
<b>Total Dom. Consumption</b>	8227	7313	8530	7794	8705	8105
<b>Ending Stocks</b>	20	20	0	0	0	0
Total Distribution	8264	7350	8545	7810	8720	8120
(1000 HEAD), (1000 MT CWE	)					

#### **SWINE**

#### **Animal Health**

African Swine Fever affecting all sectors of the swine industry

In a country where half of the world's pigs reside and half of the world's pork is consumed, ASF has brought significant changes and will continue to affect swine and pork production for the foreseeable future. China's Ministry of Agriculture and Rural Affairs (MARA) began publicly reporting African Swine Fever outbreaks in August 2018. The outbreaks began in China's Northeast, with initial reports coming from Liaoning Province. However, the outbreaks quickly spread down to Central, Eastern, and finally South and Southwest China by the end of 2018. As of March 11, 2019, 28 out of 31 Chinese administrative regions (including provinces, municipalities, and Autonomous Regions) have reported ASF. In short, ASF has been detected in provinces that represent all commercially relevant swine and pork production in China.



Source: USDA APHIS

https://www.aphis.usda.gov/animal health/downloads/animal diseases/swine/asf-china.pdf

The effects of ASF have reached all sectors of the Chinese swine and pork industry. Chinese breeders have reduced their inventories and normal business transactions have been put on hold. Numerous U.S. industry sources that visit China frequently have privately shared that they are concerned about attending swine conferences in China out of concern for bringing ASF back to the United States. Chinese farms, both large and small, have dealt with controlling outbreaks, increasing bio-security measures, and complying with new government regulations including new restrictions on transporting hogs and pork. Slaughterhouses have experienced increased documentation requirements by local and central government authorities, as well as significant fluctuations in hog supply. In some regions, slaughterhouses were flooded with demand for slaughtering services as farmers raced to liquidate existing stocks. In these areas, the per-animal slaughtering fees have doubled or even tripled. In other regions, slaughterhouses saw business plummet as hogs were prevented from being brought to market due to transport restrictions. Industry reported that in some parts of the Northeast, many smaller slaughterhouses stood idle due to the lack of hogs. Chinese pork processors have also experienced significant disruptions to normal business operations as ASF has been detected in a number of processed products, resulting in several countries banning Chinese processed pork products. Recently, China has put in place new regulations requiring slaughterhouses to test each batch of pork for ASF before it can be released into commerce. Finally, Chinese retailers have also been affected as supplies of pork have been disrupted by transportation bans. For example, during the last three months of 2018, some major supermarkets in Dalian (Liaoning Province) were unable to stock fresh pork.

# Consolidation of industry accelerates because of ASF outbreaks

Many industry experts have opined that ASF is accelerating the shift from small-holder farms to modern, large-scale hog production operations. Although ASF has affected several large operations, including a 20,000 head operation in Liaoning, a 73,000 head operation in Heilongjiang, a 70,000 head operation in Jiangsu, and most recently, a 24,000 head operation in Guangxi Province, the majority of outbreaks have been reported on small farms of 1,000 head or less (74 out of 112). With increased bio-security and documentation requirements, small farms are finding themselves at a disadvantage to larger operations that have better access to funds necessary to implement these improvements. At a recent trade show, industry contacts reported that many large operations are planning to vertically integrate their businesses to strengthen their biosecurity measures, with breeding, fattening, slaughtering, and distribution all brought under one organization. In addition, municipal and provincial governments are responsible for administering subsidies to farmers. Multiple industry sources have reported that larger operations have better access to these local government subsidies, either due to better relationships or better administrative capacity to apply for and receive these funds. This is also promoting consolidation of the industry.

In addition, MARA released new regulations in December 2018, encouraging a new "point-to-point" system that requires swine transporters to provide documentation that their shipments originated from approved farms and are destined for approved slaughterhouses. It is likely that large farms and large slaughterhouses are more likely to be approved under this new system. Under this system, even if there is an outbreak of ASF in the same area, this point-to-point

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<sup>&</sup>lt;sup>4</sup> This does not include wild boar reports.

system is intended to allow hogs from non-affected areas to be slaughtered and marketed. If ASF outbreaks continue, then approved facilities will have a distinct business advantage.

While there is no definitive statistic for the ratio of large swine farms to medium and small farms, it is generally believed that farms with more than 500 sows currently account for roughly 10 percent of total swine inventory. The ratio of small and medium farms will continue to shrink as low-prices, inability to adapt to regulatory changes, and insufficient biosecurity forces the smaller players to exit the market.

## Increased commercial feed utilization

As ASF detections continue to pressure the industry to consolidate and modernize, commercial feed demand will rise. Swill feeding, also known as garbage feeding, was widely used across the Chinese swine industry prior to the outbreaks of ASF. MARA announced a ban on swill feeding in September 2018—a complete ban in provinces where ASF has occurred and a requirement for high-temperature treatment in provinces with no ASF history. Since ASF has been reported in all provinces relevant to swine production, this announcement effectively bans all swill feeding. Nonetheless, industry reports that swill feeding still continues in many operations. As more operations phase out swill feeding, the demand for commercial feed will increase.

# ASF is significantly underreported

While MARA has reported 115 outbreaks to the World Organization for Animal Health (OIE), with roughly 1,000,000 swine culled (as of March 11, 2019), it is likely that this vastly underestimates the total number of outbreaks and animals culled across China. In the early weeks of ASF reporting from China, MARA's reports to the OIE would provide a total number of animals culled in an affected area, in addition to the animals culled at the affected establishment. For example, on September 6, 2018, China reported an outbreak on a small farm in Changqing Township, Heilongjiang Province. The farm only had 87 animals, 75 of which had to be culled. However, the report also stated that simultaneously, a total of 8,103 swine in Changqing Township were culled as a control measure. While these details do not appear to be included in China's reports to the OIE after October 2018, it is evidence that the number of swine culled in an effort to control and prevent continued outbreaks of ASF is far above the officially reported number.

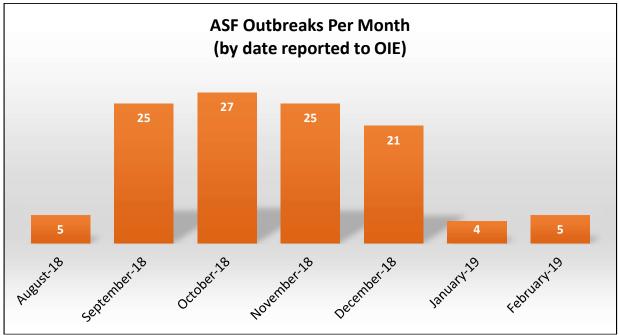
Many ASF outbreaks in China have simply not been reported because of a number of reasons. First, there is a lack of incentive for farmers to report. From about August 1, 2018, MARA initially set a per head subsidy of 800 RMB for each animal culled. Taking into account the national average daily hog price was just above 13 RMB/kg, with finished pigs weighing approximately 200 kg, the 800 RMB subsidy was less than a third of the market price for finished hogs. Industry reported that this disparity was an important factor for many Chinese swine farmers when considering whether or not to report possible animal health issues to local authorities. China's central government responded to public comments from the swine industry by raising the subsidy to 1,200 RMB/head in September 2018. But even then, the subsidy remains well below the level needed to provide a financial incentive for farmers to report outbreaks.

Second, Chinese media has reported on ASF outbreaks that do not appear in the official reports. Across Chinese social media, industry has voiced concerns about outbreaks in their region not being reported, thereby preventing industry from getting access to the assistance they need. Some contacts have reported instances where individuals were actually discouraged or prevented from publicizing outbreaks in their region. For example, a hog manager in Shandong Province was allegedly arrested for reporting an ASF outbreak to the national government, after his reports to local government were ignored. In addition, there are widespread reports in Chinese media about government crackdowns on swine and pork operations all across the country for improper handling of dead and sick pigs.

Third, based on the wide geographic spread of reported ASF cases, combined with ease of ASF transmission and swine density, it is highly improbable that outbreaks along major transportation corridors and in densely populated swine production regions are isolated incidents. For example, Shandong Province, a major swine producing region along a major North-South live swine transportation corridor, has only officially reported one case, a 4,500 head facility. However, industry has reported multiple cases of ASF in Shandong Province.

# Industry remains cautious about restocking and expanding

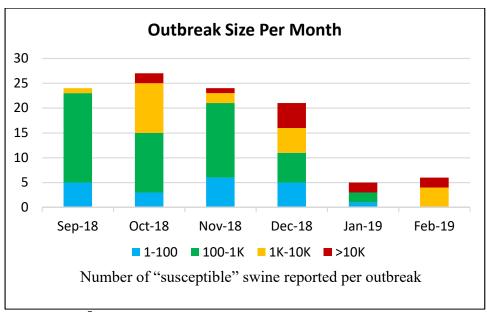
At this point, it is unclear when China's government will have sufficient control over the ASF situation to convince domestic industry to begin restocking and expanding. As previously noted, many in the swine industry are still taking a wait-and-see approach to ASF in making business decisions. While the number of ASF reports in January and February 2019 has appeared to slow down compared to monthly reports from August to December 2018, it is unclear whether this decrease is due to a decrease in actual ASF cases, or a decrease in monitoring and reporting.



Source: OIE<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Note, ASF outbreaks in wild boar populations are not included here.

One notable trend has been the increasing size of the operations reporting ASF detections. In 2018, the majority of outbreaks were reported on units with less than 1,000 head.<sup>6</sup> In 2019, the ratios changed, with units of 1,000 head or more accounting for 80 percent of total outbreaks.



Source: OIE<sup>7</sup>

While much remains unclear about the future of ASF in China, China's stock market is already predicting that the Year of the Pig will bring windfall profits to China's large publicly owned swine operators. While the stock prices of several large livestock companies dipped sharply during the early announcements of ASF, these prices have roared back as Chinese investors bet on the ability of large companies to maintain sufficient biosecurity measures, insulating them as ASF continues to ravage other operations, constraining the supply of pigs available for slaughter and sending prices to near-record highs.

#### **Production**

2019 ending inventory down by 13 percent to 374 million head

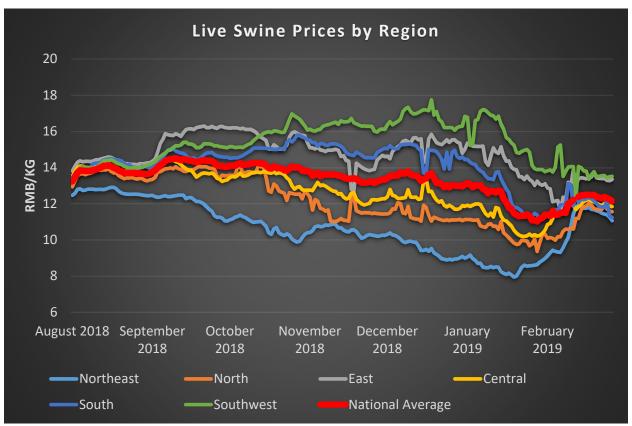
ASF's profound impact on production is evident in the projected 2019 ending inventory. The swine herd will likely be reduced by 13 percent in 2019, to 374 million head. Due to lower inventory heading into 2019 and a sharp decrease in the sow population, the overall hog supply will be down 8 percent to 1.0 billion head. While China will slaughter less pigs in 2019 due to the decreased supply, it will only be a 5-percent reduction. As present, a significant restocking or expansion is not foreseen until the latter half of 2019, and most likely late 2019 at the earliest.

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<sup>&</sup>lt;sup>6</sup> Note, unit size is estimated based on the number of "susceptible" swine reported to OIE. In some cases, it is possible that the "susceptible" number includes swine from more than 1 farm.

<sup>&</sup>lt;sup>7</sup> Outbreaks from August 2018 are not included because reporting from that month is not consistent with other time periods.

This overall decrease will magnify the regional situations that led to sharp price divergences in late 2018, early 2019. The main reason for these stark regional differences are the movement restrictions put in place by China's local and central governments. Restrictions on the movement of pigs and pork across provincial borders have caused a decline in live swine prices where there is a net surplus of hogs in the province, and a jump in prices in provinces where the demand outstrips the supply. It is estimated that 14 percent of all hogs in China (roughly 100 million head) cross a provincial border before they are slaughtered.



Source: Zhue.com.cn

In order to address these price fluctuations, China's government has taken two important steps: first, they released a new African Swine Fever Contingency Plan which essentially removed mandatory inter-provincial transportation bans and second, they are declaring ASF-affected epidemic sites as "cleared" as soon as possible (after six-weeks or even earlier). As of March 11, 2019, all but seven of the 115 outbreaks in swine facilities had been "cleared." This swift clearing of outbreaks, coupled with the revised contingency plan, is designed to facilitate the movement of live hogs and pork across province borders. As shown in the chart above, the regional prices for live swine have begun to converge, returning to the pre-ASF situation. While prices in most regions seem to have stabilized, concerns about continued ASF outbreaks have most swine producers taking a wait-and-see approach to restocking and expansion. Most recently, MARA has distributed for comment a new regional plan that would restrict live swine

movement to one of five regions, essentially isolating major disruptions to the pork supply chain in the event of continued outbreaks.<sup>8</sup>



Source: China's National Bureau of Statistics

Major Production Region	Production Percentage of Total China				
Northeast	10%				
North	25.87%				
East	25.37%				
South	13.19%				
Southwest	20.62%				

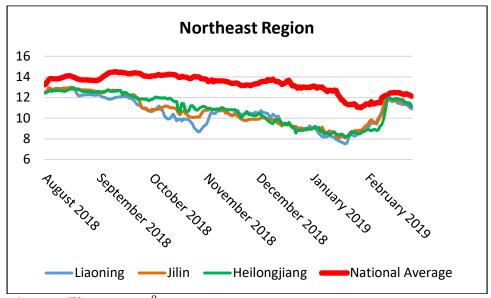
Northeast Region: Liaoning, Heilongjiang, Jilin, Inner Mongolia

China's Northeast region experienced the first reported outbreaks of ASF. Overall, this region accounts for a third of all officially reported outbreaks (38 of 115). The Northeast region is a net exporter of live swine in China, supplying Beijing, Tianjin, and other areas to the south. Since 2015, China's central government has been pushing hog raising into the Northeast, closer to feed production areas and further away from major population centers. Due to Chinese consumer

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<sup>&</sup>lt;sup>8</sup> This plan has not been released to the general public yet and has not been reviewed by this office. However, based on industry reports, the five regions represented in this new plan are not necessarily the five regions used by China's National Bureau of Statistics.

preference for freshly slaughtered meat, live swine produced in the Northeast are then shipped live by truck down to their eventual slaughter destination, sometimes more than two thousand miles away. Since the fall of 2018, live swine from the Northeast have largely been prevented from moving out of the region, resulting in a massive surplus of live swine. Accordingly, the price of live swine in Northeastern provinces plummeted. For example, during the month of October, amid almost daily announcements of new outbreaks, the price of live swine in Northeastern Liaoning Province had fallen to 10 RMB/kg, while the prices in Zhejiang, a traditional market for these Northeastern bred hogs, jumped to 20 RMB/kg. Swine prices continued to fall in 2019, but have since rebounded in February, most likely driven by the increased demand for pork through the Chinese New Year holiday and a loosening of transportation restrictions.



Source: Zhue.com.cn<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> The live swine pricing data from Zhue.com.cn is based on the third-generation crossbred hog.

Within the Northeast region, many slaughter facilities were working overtime to process the large number of hogs being sent to market, as farmers raced to liquidate their herds before an outbreak prevented them from legally slaughtering their animals. In some cases, industry has even reported that farmers were sending underweight hogs and even sows to slaughter. Due to this demand for slaughtering services, the average price per head for slaughtering hogs increased. For example, in Dalian City, located in Liaoning Province, the average price jumped from 60



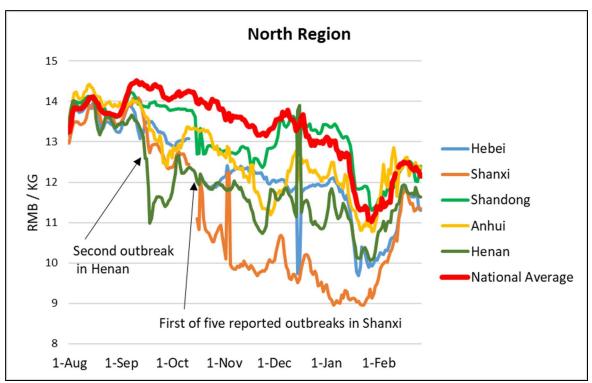
Source: Yangzhu, a Chinese swine industry publication

RMB per head to 300 RMB. With such low hog prices, or inability to transport hogs to slaughter facilities, some farmers have allowed their herd to gain additional weight, resulting in a phenomenon known in China as "bull pigs" with some hogs reaching weights of 400 kilograms, or double the usual slaughter weight. This overall increased slaughter weight will somewhat offset the fewer number of animals available for slaughter in 2019.

While industry has already reported some investment in expanding slaughter facilities in the Northeast, which would increase the transportation of pork out of the province instead of live hogs, it is anticipated that low live hog prices will continue in the Northeast, hindering the herd recovery in this area. Even though the Northeast was the first to be hit with ASF, it will likely be the last region to recover.

North Region: Anhui, Shandong, Hebei, Shanxi, Henan

The North region has the largest number of hogs (by region) and the highest slaughter capacity. It was affected by ASF early on, with the second reported outbreak coming from a slaughter facility in Zhengzhou, owned by China's largest livestock company, WH Group, the parent company of Shuanghui. From September to October, widespread outbreaks across Anhui Province confirmed that ASF was quickly moving into China's heartland. Successive outbreaks in this region sent live swine prices tumbling.

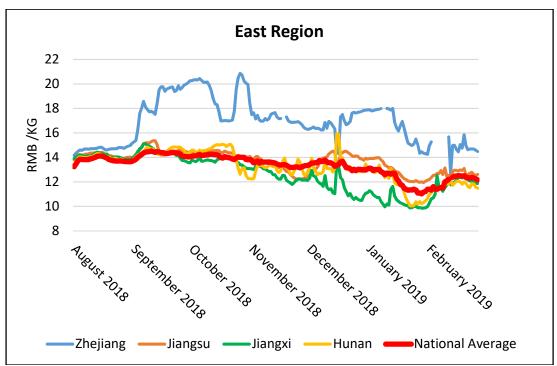


However, the North region generally saw less severe price fluctuations in the live swine price than in the Northeast. A majority of China's swine slaughter facilities and pork processing facilities are in this region. Despite the decreased supply of hogs for slaughter (as the Northeast supply was generally cut off), the decreased demand for pork and processed pork products acted as a counterbalance, moderating the price fluctuations. Shanxi Province saw price fluctuations consistent with the Northeastern region as it too is a net exporter of live hogs.

According to industry reports, large stores of frozen pork have accumulated in this region, as slaughter facilities were either unable to ship pork out, or are waiting until prices increase again. Much of this frozen pork is destined for meat processing facilities. However, industry has reported detections of ASF in meat in cold storage facilities and well as in processed pork products. It is possible that large branded processors may try and avoid using these accumulated stores of domestically slaughtered pork for fear of ASF contamination.

East Region: Jiangsu, Zhejiang, Hunan, Jiangxi

Despite being a major hog producing region, the East Region saw an overall increase in the average live swine prices. Zhejiang Province saw the highest price increases as it has few hog operations relative to its dense population. Shanghai Municipality is located in this region but not shown here as consistent price data was not available.



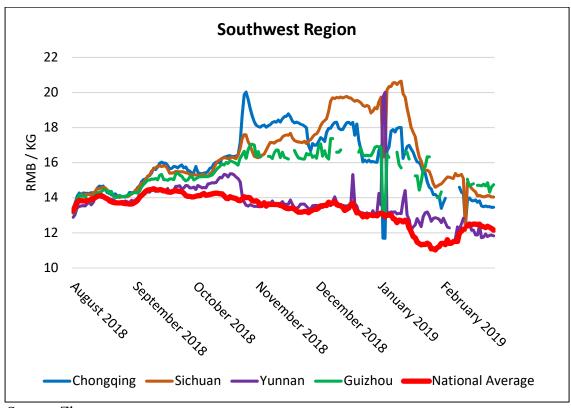
Southwest Region: Chongqing, Sichuan, Yunnan, Guizhou

Southwest China is a net importer of hogs and swine movement restrictions in the end of 2018 put upward pressure on live swine prices, especially heading into the Chinese New Year season. In Southwestern China, smoked pork belly and pork sausage play an important role in the regional cuisine and are ubiquitous in the weeks leading up to Chinese New Year. In the Southwest region, beef, poultry, and seafood are less likely to be substituted for pork, leading to sustained demand despite the ongoing outbreaks of ASF.

China's central government has supported the expansion of hog farming in the Southwest region for the past few years in attempts to move swine operations away from more densely populated provinces to the East.



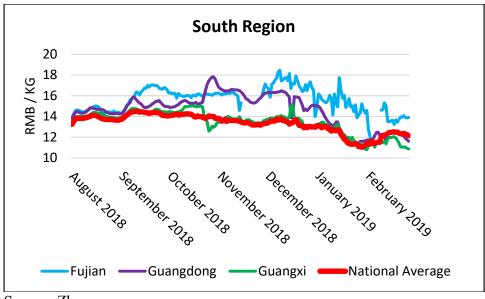
Photo Credit: Jordan Porter



South Region: Fujian, Guangdong, Guangxi

Although the South region is a large swine producing region, it is a net importer of live hogs, therefore prices have generally shifted upwards due to ASF. While this region has the fewest average number of outbreaks (2.3 outbreaks per province), it has one of the highest averages for outbreak size (average of 7,424 head susceptible per reported outbreak). Guangxi Province's sole reported outbreak (thus far) came from a large farm, with 924 deaths due to ASF, and another 24,000 hogs susceptible.

Nevertheless, based on industry reports from Guangdong, many of the large operations in the region are confident of their biosecurity measures and are already planning for expanding operations to meet the growing demand. According to one industry source, prices for live piglets in Guangdong have already started to rise and are as high as 660 RMB / head, almost 50 percent higher than they were at the same time last year. Recently, Guangdong Province published a draft plan for managing ASF within a six-province southern bloc. The plan heavily features support to large, integrated operations in expanding their operations.



## **Imports**

Concerns about spreading ASF and reduced demand have limited imports of live swine and swine genetics, but imports may pick up in the latter half of 2019 as China's herd begins to rebuild

Swine imports will fall to 6,000 head in 2019, representing a 40-percent decrease from 2018. At several animal husbandry conferences and events held in China this year, organizers reported that attendance was down significantly due to concerns about spreading ASF among attendees. Some industry contacts reported that in certain areas affected by ASF outbreaks, staff from farms were prevented from traveling outside of their province. At one of the large animal husbandry shows in 2018, U.S. industry contacts reported that sales of animal genetics, feed, veterinary medicines, and equipment were far below normal levels due to ASF. In addition, some overseas breeders were hesitant to have Chinese hog breeders visit their facilities, postponing annual visits until the ASF situation was under control.

Industry experts have estimated that there will be a rebound in swine genetic imports if pork prices continue to increase and the number of outbreaks slows. Due to the continued skepticism within the industry that ASF will be controlled, let alone eradicated, it is likely that this rebound will not happen until fall of 2019, at the earliest.

#### **PORK**

#### **Production**

Pork production will decrease by 2.7 million metric tons, opening door for increased imports

China pork production will decrease to 51.4 million MT in 2019, representing a 5-percent decrease. Similar to the imbalance of live hogs by region, pork supply and demand will also vary

regionally. However, recent changes by the Chinese government to encourage shipment of chilled and frozen pork instead of live swine, should allow the market to rebalance across regions. Two factors that will impact the speed of this transition will be the degree to which Chinese consumers are willing to eat chilled and frozen pork, and the speed at which the industry can add cold-chain capacity (both in terms of storage and transportation).

Another factor that will stabilize pork production in China in 2019 is the increased average slaughter weight. As discussed above, lack of access to slaughtering facilities and low prices have caused some farmers to raise their animals to heavier slaughter weights. So while the overall number of animals available for slaughter in 2019 is decreased by 6 percent, the increased carcass weights will somewhat offset that loss.

## Consumption

Concerns over ASF push consumers to eat less pork and substitute other proteins, but shift is limited

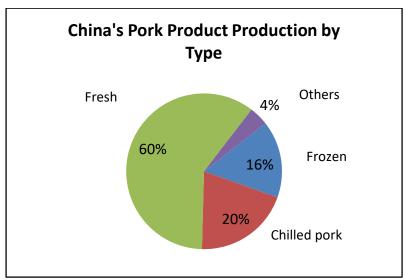
Consumption of pork will fall to 53.2 million MT, mostly due to ASF-related issues, representing a 4-percent year-on-year decrease. Food safety scares are rampant in China and many local contacts report that they have avoided eating pork due to food safety concerns stemming from ASF, despite assurances from the central government that eating pork is safe. In the latter half of 2018, a number of businesses and schools made announcements to employees and parents that pork would no longer be served in their cafeterias, due to concerns about ASF.

Demand has already increased for alternative proteins to replace an anticipated 2 MMT drop in pork consumption. Poultry prices have jumped in response to increased demand for a low-priced protein alternative. Beef and mutton sales have also seen unseasonal increases as consumers seek out alternatives to pork. In some cases, the decision to avoid pork is simply economic. Low supplies in some areas have pushed pork to record prices, forcing it to compete with poultry and seafood. In other cases, especially in first-tier cities where beef, poultry, lamb, and premium seafood are readily available, the choice is based on a preference to diversify the diet.

Nevertheless, pork will remain the preferred protein for the majority of Chinese consumers in 2019.

Transition from "hot meat" to chilled/frozen pork underway, but will happen slowly

As China's cities continue to grow, the success of large supermarket chains has been well-documented. Increasing numbers of middle-class consumers are preferring to buy their pork from supermarkets. Branded pork commands significantly higher prices and large livestock companies have invested significantly in traceability and food safety to meet the growing demand.



Source: Chinese industry

However, the fact remains that over 60 percent of pork consumed in China is still marketed through traditional wet markets, where meat is advertised as still being warm from slaughter. These sales of "hot meat" are expected to slowly decline as it becomes more difficult to sell and distribute live hogs throughout China. As these logistical and regulatory difficulties contribute to rising prices of "hot meat", coupled with the increasing availability of chilled/frozen pork, the shift from hot meat will accelerate.

Pork processing sector to increase utilization of frozen pork reserves and imported product

Another interesting consumption trend in 2019 will be the utilization of accumulated pork by China's pork processing sector. In China, consumer preference for fresh and chilled pork means that the market for frozen pork mainly falls to the food processing sector. Currently, a large amount of frozen pork is being stored in cold-storage across China. Several industry contacts have reported that they are waiting for the pork price to increase before they begin selling their frozen pork stocks that accumulated while farmers were rushing their herds to slaughter. This is especially true in the North region where provinces like Henan, Anhui, and Shandong have significant slaughter and cold storage capacity. Utilization of these unofficial reserves will help balance out the impending decrease in pork production.

Finally, most of China's large meat processors are also large meat importers. As ASF outbreaks continue, these large processors are looking to import more frozen pork to ensure a safe supply for processing. Recently, China's largest frozen food manufacturer, Sanquan, made international news on reports that ASF had been detected in its frozen pork dumplings, leading to a large recall. Similarly, Shuanghui, Synear, and Kedi Group are all large Chinese food processors that have been associated with reports of ASF. Depending on whether or not China is able to control the continued spread of ASF in its domestic herd, large processors will increasingly look to import frozen pork for processing.

#### **Imports**

Imports to increase by 30 percent, with Brazil becoming the leading importer

In 2019, China's imports of pork are forecast at 2 million MT, representing a 33-percent year-on-year increase. This jump in imports is directly due to the temporary decrease in domestic pork production. While the actual amount of pork imported in 2019 depends on a number of factors, two key drivers will be the ASF situation in Europe and U.S.-China trade relations.

Europe is experiencing its own ASF problems, with ASF cases reported in European Union member states Poland, Latvia, Hungary, and most recently, Belgium. To the east, Romania, Moldova, Ukraine, and Russia, have also reported outbreaks. As the EU alone accounted for 76 percent of China's total pork imports in 2018, the continued spread of this disease is a constant concern to exporters across Europe.

Chinese imports of U.S. pork were down by nearly half in 2018 as China's government levied retaliatory tariffs on most U.S. agricultural products, including pork. With an additional two tariffs, most U.S. pork now faces a 62-percent tariff, versus the MFN rate of 12 percent. While the United States is well-positioned to supply the Chinese market, the additional tariffs will continue to constrain opportunities.

In 2018, Brazil surpassed Germany, Spain, and Canada to become the largest exporter of pork to China. From 2017 to 2018, Brazilian pork exports to China jumped over 200 percent.

## **Exports**

Exports decrease slightly due to ASF-related concerns

Many of China's trading partners have reacted to the outbreaks of ASF in China by limiting imports of Chinese processed pork products, which will drive down China's exports to 170,000 MT, representing a decrease of 11 percent. China's largest export market for pork is Hong Kong, which almost entirely relies on mainland China for its live swine and pork. While Hong Kong has not implemented an outright ban on all Chinese-origin swine or pork, Hong Kong authorities suspended a number of mainland Chinese facilities, but has since lifted most of these suspensions, allowing supplies to almost fully rebound.

# SWINE PS&D TABLE

Animal Numbers, Swine	2017		20	18	2019		
Market Begin Year	Jan 2	2017	Jan 2	2018	Jan 2019		
China	USDA Official New Post		USDA Official	New Post	USDA Official	New Post	
<b>Total Beginning</b>	435040	442092	433250	441589	440000	428070	
Stocks							
<b>Sow Beginning Stocks</b>	44000	44950	44500	43610	44750	38380	
Production (Pig Crop)	689500	704098	708000	683580	712000	606400	
Total Imports	6	6	10	10	8	6	
Total Supply	1124546	1146196	1141260	1125179	1152008	1034476	
Total Exports	1557	1557	1600	1570	1600	1500	
Sow Slaughter	0	0	0	0	0	0	
Other Slaughter	688610	702021	698000	693820	707000	658000	
Total Slaughter	688610	702021	698000	693820	707000	658000	
Loss	1129	1029	1660	1719	2408	1176	
<b>Ending Inventories</b>	433250	441589	440000	428070	441000	373800	
<b>Total Distribution</b>	1124546	1146196	1141260	1125179	1152008	1034476	
(1000 HEAD)							

Note: Estimates included in this report are not USDA's official figures, which can be found at http://www.fas.usda.gov/psdonlineonline

# PORK PS&D TABLE

Meat, Swine	20	17	2019				
Market Begin Year		2017 2018   Jan 2017 Jan 2018			Jan 2019		
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Slaughter (Reference)	688610	702021	698000	693820	707000	658000	
Beginning Stocks	0	0	0	0	0	0	
Production	53400	54518	54150	54040	54800	51350	
Total Imports	1620	1620	1750	1561	1875	2000	
Total Supply	55020	56138	55900	55601	56675	53350	
Total Exports	208	208	175	190	150	170	
Human Dom. Consumption	54812	55930	55725	55411	56525	53180	
Other Use, Losses	0	0	0	0	0	0	
Total Dom. Consumption	54812	55930	55725	55411	56525	53350	
Ending Stocks	0			0	0	0	
Total Distribution	55020	56138	55900	55601	56675	53350	

China National Retail Pork Prices on Average, 2014-2018

(DMD (WC)	2014	2017	2016	2017	2010	% Change
(RMB/KG)	2014	2015	2016	2017	2018	2018/17
January	24.37	22.37	27.66	28.95	25.46	-12%
February	22.98	22.02	28.86	28.57	24.98	-13.6%
March	21.49	21.44	28.97	27.43	22.63	-17.5%
April	19.70	21.54	30.20	26.59	20.78	-21.9%
May	20.86	22.33	30.97	25.23	19.52	-22.6%
June	21.69	23.30	37.6	24.11	19.83	-17.75%
July	21.91	25.81	30.24	24	20.4	-15%
August	23.23	28.06	29.70	24.38	21.96	-9.9%
September	23.90	28.27	29.6	24.92	23.13	-7.2%
October	23.60	27.54	28.24	24.71	23.54	-4.7%
November	23.17	26.69	27.93	24.55	23.52	-4.2%
December	22.88	26.76	28.21	25.11	23.69	-5.7%
Source: Ministry of A	Agriculture d	ata collected	from over	400 marke	ts of farm p	produce.

China Live Hog Prices on Average, 2014-2018

						% Change
(RMB/KG)	2014	2015	2016	2017	2018	2018/17
January	14.46	13.38	17.62	18.2	15.23	-16.3%
February	13.11	12.71	18.37	17.8	14.06	-21%
March	12.05	12.27	18.90	16.8	11.9	-29%
April	11.12	12.91	19.84	16	10.93	-32%
May	12.79	13.92	20.45	14.6	10.6	-27%
June	13.06	14.87	20.41	13.8	11.32	-17.9%
July	13.34	16.86	19.03	13.96	12	-14%
August	14.56	18.15	18.62	14.42	13.36	-7.4%
September	14.88	17.86	18.36	14.75	14.11	4.3%
October	14.42	17.10	16.88	14.49	14.1	-2.7%
November	14.09	16.45	16.98	14.47	13.87	-4.1%
December	13.81	16.71	17.46	15.07	13.98	-7.2%
Source: Ministry of A	Agriculture d	ata collected	from over	400 marke	ts of farm p	produce.

China Piglet Prices on Average, 2014-2018 (Year to Date)

(RMB/KG)	2014	2015	2016	2017	2018	% Change 2018/17
January	24.36	19.29	32.18	41	30.6	-25.4%
February	23.22	19.21	35.05	42.7	29.8	-30.2%
March	22.76	20.09	40.77	43.7	27.6	36.8%
April	21.84	23.07	47.30	43	25.9	39.8%
May	22.99	25.75	51.01	39.9	24.1	-40%
June	23.79	27.78	52.39	36.2	24	-33.7%
July	23.55	31.13	49.11	35.6	24.27	-32%
August	24.29	34.33	47.06	34.9	25.37	-27.3%
September	24.53	34.16	45.7	34.2	25.67	-24.9%
October	23.20	31.99	41.15	33.17	24.68	-25.6%
November	21.38	29.73	39.06	30.89	23.36	-24.4%
December	20.14	29.62	38.88	30.5	22.67	-25.7%